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STATE DOCUMENTS

A Summary ......

COMMUNITY WATER PURVEYOR RESPONSIBILITIES

Under The

SAFE DRINKING WATER ACT

(Public Law 93-523)

As Related To National Interim Primary Drinking Water Regulations

PLEASE RETURN

RESPONSIBILITY

The purveyor (supplier) responsibilities are explained under the following categories:

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PURPOSE

This summary has been prepared to provide an outline of requirements under the National Interim Primary Drinking Water Regulations as related to the responsibilities of water supply officials in meeting such requirements. It does not include existing State drinking water requirements.

The data and information was derived from the National Interim Primary Drinking Water Regulations of the Federal Environmental Protection Agency. These Regulations implement the intent of the Federal Safe Drinking Water Act (P.L. 93—523) and will become effective June 1977.

The objectives of the Safe Drinking Water Act are to:

1. establish standards which will provide for safe drinking water supplies;
2. authorize the Environmental Protection Agency to establish national drinking water regulations;
3. provide a mechanism for the individual state to assume responsibility for enforcing the regulations;
4. permit states to strengthen their public water supply supervision programs.

APPLICABILITY

By definition, a community water system means a public water system which serves at least 10 service connections used by year-round residents or regularly serves at least 25 year-round residents. This includes a system consisting of only distribution and storage, such as a water district purchasing its water from a water system with source and treatment.

MONITORING AND ANALYTICAL REQUIREMENTS

MICROBIOLOGICAL (Sec. 141.14 & 141.21)

Water samples for coliform bacteria shall be collected:

1 —At points representative of distribution system conditions.
2 —At regular time intervals and based on the population served.

Sampling Frequency

Surface waters — monthly, based on population served, with minimum of one per month for supplies serving between 25 and 1000 people.

Ground waters — same as surface water supplies. Systems serving 25—1000 may, with written permission of the health department*, reduce sampling frequency based on a history of no coliform bacterial contamination and on a sanitary survey by the health department showing the water system is supplied solely by a protected ground water source and is free of sanitary defects. In no case shall less than one sample be collected per quarter.

Maximum Contaminant Level

Fermentation tube method — coliform bacteria shall not be present in any of the following 10 ml standards portions:

1 —more than 10 percent of the portions in any reporting period;
2 —three or more portions in more than one sample when less than 20 samples are examined in any reporting period; or
3 —three or more portions in more than five percent of the samples when 20 or more samples are examined.

* ***Where the term health department appears, it shall mean the State Department of Health & Environmental Sciences [DHES].***

Membrane filter method — in a 100 ml sample coliform bacteria shall not exceed:

1 —one colony as the arithmetic mean of all samples examined in any reporting period;
2 —four colonies in more than one sample when less than 20 are examined in that reporting period;
3 —four colonies in more than five percent of the samples when 20 or more are examined.

Determination of maximum contaminant levels for coliform bacteria may, at the discretion of the State, be based upon a three month reporting period provided the system is required to take less than four samples per month. This flexibility allows the small system (serving not more than 3300 people) to average bacteriological samples over a more representative time frame.

Action By Purveyor

When coliform in a single sample exceeds four per 100 ml by the membrane filter method — the purveyor must collect at least two consecutive daily check samples from the same point and additional needed samples until two consecutive samples show less than one coliform per 100 ml.

or,

When coliform occurs in three or more 10 ml portions of a single sample by the fermentation tube method — collect at least two consecutive daily check samples until results from two consecutive daily samples show no positive tubes.

Check samples shall not be included in calculating the total number of samples taken each month to determine compliance with the number required based on population.

When coliform presence is confirmed by any check sample the purveyor must report to the health department with 48 hours.

When maximum contaminant levels are exceeded the purveyor must report to the persons served and notify the public.

Chlorine Residual

Based upon a sanitary survey which has determined that a community water system is free of sanitary defects and water sources are adequately treated and/or protected, the purveyor may receive State Health Department approval for substitution of chlorine residual monitoring for not more than 75 percent of the microbiological samples required, provided chlorine residual samples are taken at a frequency of at least four for each substituted microbiological sample — and at least daily residual determinations are made — and that the system maintains no less than 0.2 mg/1 free chlorine residual throughout the distribution system. If less than 0.2 mg/1, retest within one hour. If original analysis is confirmed, report to the health department within 48 hours, collect sample for coliform analysis and report the results to the State.

TURBIDITY SAMPLING – Applies Only to Surface Waters
(Sec. 141.13 & 141.22)

Sampling Frequency

Purveyor takes samples of water at representative entry points to the distribution system at least once per day.

Maximum Contaminant Level

1 —One turbidity unit (TU) as a monthly average — except five or fewer TU's monthly average may be allowed by the State if the purveyor demonstrates that it does not:

  a — Interfere with disinfection.
  b — Prevent effective distribution disinfection.
  c — Interfere with microbiological determination.

2 —Five turbidity units based on an average for two consecutive days.

Action By Purveyor

If turbidity exceeds maximum contaminant level — resample within one hour — if repeat sample exceeds limit, report to the health department within 48 hours.

If monthly average exceeds limit or if the average of two samples taken on consecutive days exceeds five TU the supplier shall — report to the health department and notify the public.

INORGANIC SAMPLING (Sec. 141.11 & 141.23)

Sampling Frequency

Surface waters — complete by June 1978 and repeat yearly.

Ground waters — complete by June 1979 and repeat at three year intervals.

Maximum Contaminant Level

Contaminant	Level (mg/1)	Contaminant	Level (mg/1)
Arsenic	0.05	Mercury	0.002
Barium	1.	Nitrate as N	10.
Cadmium	0.010	Selenium	0.01
Chromium	0.05	Silver	0.05
Lead	0.05	Fluoride	2.0-2.2

Action By Purveyor

If result of an analysis exceeds maximum contaminant level — supplier shall report to the health department within 7 days and initiate three additional analyses within one month. When the average of four analyses within one month exceeds maximum level, report to the health department within 48 hours and notify the public.

For nitrate only, when an analysis exceeds maximum level, supplier shall take a second sample within 24 hours. When the average of two samples exceeds the maximum level, report to the health department within 48 hours and notify the public.

Monitoring after public notification shall be at a frequency determined by the health department and shall continue until two consecutive samples do not exceed maximum contaminant level or until a schedule for enforcement action becomes effective.

ORGANIC SAMPLING (Sec. 141.12 & 141.24)

Sampling Frequency

Surface sources — complete by June 1978 — repeat at health department specified intervals but no less than three year intervals.

Ground water sources — analyses completed as specified by the health department.

Maximum Contaminant Level

Contaminant	Level (ug/1)	Contaminant	Level (ug/1)
Endrin	0.2	Toxaphene	5.0
Lindane	4.0	2,4—D	100.
Methoxychlor	100.	2,4,5—TP Silvex	10.

Action By Purveyor

If analyses exceed limit, notify the health department within seven days and initiate three additional analyses within one month.

When average of four analyses exceeds maximum level, report to the health department within 48 hours and notify the public. Monitoring after public notification shall be at a frequency designated by the health department and shall continue until two successive samples do not exceed limit.

APPROVED LABORATORIES (Sec. 141.28)

For compliance determination, water samples will be considered only if analyzed by a laboratory approved by the health department — except that turbidity and chlorine residual may be performed by any person acceptable to the health department.

MONITORING OF CONSECUTIVE COMMUNITY WATER SYSTEMS (Sec. 141.29)

When a purveyor supplies water to one or more other public water systems — the health department may modify the monitoring requirements if the systems may be considered a single system. The modified system will be monitored as specified by the health department and as concurred with by the E.P.A.

Each of the separate water systems is responsible for the modified sampling program applying to its system.

RADIONUCLIDES IN COMMUNITY WATER SYSTEMS (Sec. 141.15, 141.16, 141.25, and 141.26)

Sampling Frequency

Surface sources - Gross Alpha, Radium 226, and Radium 228, completed by June 1980 - Repeat at health department specified interval but no less than four years.

Manmade beta and photon radioactivity - Surface sources - serving more than 100,000 population completed by June 1979 - Repeat at health department specified interval but no less than four years.

Ground Sources - analysis completed as specified by the health department.

Maximum Contaminant Level

Contaminant	Level (pCi/1)
Combined Radium 226 & Radium 228	5
Gross alpha including Radium 226 (But excluding Radon and Uranium)	15

Manmade radionuclides in water shall not produce an annual dose equivalent to the total body or any internal organ greater than four milligram/year. If two or more radionuclides are present, the sum of their annual dose equivalents to the whole body or any internal organ shall not exceed four milligram/year.

Average annual concentrations assumed to produce a total body or organ dose of four milligram/year.

Radionuclide	Actual Organ	pCi per liter
Tritium	Total Body	20,000
Strontium 90	Bone Marrow	8

Action by Purveyor

If analyses exceeds limit, notify department within 40 days and initiate quantity sampling within question and notify public of failure to comply in accordance with section on public notification.

REPORTING, PUBLIC NOTIFICATION, RECORD KEEPING

REPORTING REQUIREMENTS (Sec. 141.31)

1— Report to the health department within 40 days results of all tests.
2— Report to the health department within 48 hours of failure to comply with any primary water regulation including monitoring.

PUBLIC NOTIFICATION (Sec. 141.32)

When a community water system fails to comply with:

1 — An applicable maximum contaminant level.
2 — An applicable testing procedure.
3 — Scheduled corrections.
4 — Required monitoring.

A — Notify persons served by the system in first set of water bills or by written notice within three months, and repeat once every three months as long as unsatisfactory conditions exist.

B — If water purveyor fails to comply with an applicable maximum contaminant level, the supplier in addition to A (above) shall notify the public:

1 – Within 7 days of learning of the failure—by copy of notice to radio and television stations serving the area.
2 —Within 14 days of learning of the failure—by publication (three consecutive days) in a newspaper with general circulation in the area served by the system. If area is not served by a daily newspaper — publish on three consecutive weeks in a weekly newspaper. If no daily or weekly newspaper is available, post in post offices in the area served by the system.

C — Notices will be written in a manner reasonably designed to inform fully the users of the system.

Notice shall disclose all material facts regarding the subject including the nature of the problem and, where appropriate, a clear statement that a primary drinking water regulation has been violated and any measures that should be taken by the public.

Notices may include a balanced explanation of the significance or seriousness to public health and a fair explanation of steps taken to correct the problem.

D — Notice to the public may be given by the health department on behalf of the purveyor.

E — When notification by mail is required by A (above) but notification by newspaper, radio or television is not required by B (above) the health department may order the supplier to provide notification by newspaper, radio and television when circumstances make more immediate or broader notice appropriate to protect public health.

F — Notifications to the consumer and the general public by the water purveyor for non-compliance with regulations covering maximum contaminant levels is the sole responsibility of the water purveyor. Notification by the water purveyor is necessary regardless of who carries out for the purveyor the chemical, bacterial or other analyses:

a— the water purveyor itself,
b— a county health or other county agency laboratory,
c— the State Health Department laboratory or
d— a commercial laboratory.

In all cases for the analytical results to be acceptable they must have been from a laboratory approved by the Laboratory Division, DHES.

RECORD MAINTENANCE (Sec. 141.33)

Each water purveyor must maintain the following records of:

1 — Bacteriological analyses — for at least five years. Chemical analyses — for at least 10 years. Actual laboratory reports may be kept, or data may be transferred to tabular summaries, provided that the following information is included:

a— Date, place, time of sampling, name of person collecting.
b— Identification of routine distribution system sample, check samples, raw or process water samples, special purpose samples.
c— Date of analyses.
d— Lab and person responsible for performing analysis.
e— Analytical method used.
f— Results of analysis.

2 — Records of action taken to correct violations — for at least three years after last action was taken with respect to particular violation.

3 — Copies of written reports, summaries or communications relating to sanitary surveys conducted by itself, private consultant or local, state or federal agency — for at least 10 years after completion of sanitary survey involved.

4 — Records concerning scheduling of improvements — not less than five years following expiration of scheduling time.

SITING REQUIREMENTS (Sec. 141.5)

Before entering into a financial committment, or initiating construction of a new public water system or increasing the capacity of an existing public water system — notify the health department and avoid locating part or all of a new or expanded facility at a site which:

a. is subject to risk from earthquakes, floods, fires or other disaster which could cause disruption of the system or,

b. except for intake structures, is within the flood level or is lower than any recorded high tide where appropriate records exist.

GENERAL INFORMATION

The maximum contaminant levels and resulting necessary actions by the water purveyor are selected from the "National Interim Primary Drinking Water Regulations" developed by the Federal Environmental Protection Agency to carry out the intent of the Federal Safe Drinking Water Act.

These same Federal regulations will become a part of the Montana Administrative Code (MAC) when the health department assumes legal responsibility for enforcement of regulations under the MAC.

The MAC at the present time is, in some instances, more inclusive or restrictive than the federal regulations. Present State regulations are currently under review with the goal of developing composite Federal/State drinking water requirements.

Since the maximum contaminant levels are based on public health, the water purveyor should confer with the DHES in preparing appropriate statements for consumers and the public.

Questions concerning any part of this material should be referred to the DHES.

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